IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

ROTHSCHILD LOCATION TECHNOLOGIES, LLC,

Plaintiff,

v.

C.A. No. 14-879 (RGA)

NISSAN NORTH AMERICA, INC.,

Defendant.

DECLARATION OF DR. FANG QIU

I, Dr. Fang Qiu, declare:

- 1. I am over 18 years of age and am competent to execute this Declaration. If called as a witness, I could and would competently testify to the following:
- 2. My name is Dr. Fang Qiu. I am Department Head and Professor of GIS and Remote Sensing at the University of Texas at Dallas. I teach classes in Geographic Information Sciences. I received a Bachelor of Science degree in Geography from East China Normal University in Shanghai, China, in 1990. I received a Master of Science degree in Geographic Information Systems from the Chinese Academy of Sciences in Beijing, China, in 1993. I received a Ph.D. in Geography with a concentration in geographic information processing from University of South Carolina in Columbia, South Carolina, in 2000.
- 3. My research and instructional areas are remote sensing digital image processing, spatial analysis and modeling, GIS application software development, and web-based mapping and information processing.
 - 4. My publications have appeared in peer-reviewed journals such as *International*

Journal of Remote Sensing, Photogrammetric Engineering and Remote Sensing, Computers and Geosciences, GIScience and Remote Sensing, GeoCarto International, Forest Ecology and Management, Journal of Geophysical Research and other academic journals.

- 5. I was the Winner of 2013 ERDAS Award for Best Scientific Paper in Remote Sensing by American Society of Photogrammetry and Remote Sensing, and Winners of Remote Sensing Special Group Award for 2011 and 2013 by American Association of Geographers.
 - 6. A true and correct copy of my resume is attached hereto as Exhibit A.
- 7. I have reviewed U.S. Patent No. 7,917,285 ("'285 Patent") and am familiar this the technology described therein.
- 8. To the best of my knowledge, the '285 Patent discloses and claims significantly more than the abstract idea of making a query and receiving a response to that query. The claimed invention is not an age-old idea, nor is it a basic tool of research and development like a natural law or a fundamental mathematical relationship.
- 9. The '285 Patent claims recite specific system including numerous specific components.
- 10. Claim 1 of the '285 Patent includes "[a] system for remotely entering location information into a positional information device." The system includes a server configured to (i) receive a request for an address of at least one location not already stored in the positional information device, (ii) determine the address of the at least one location, and (iii) transmit the determined address to the positional information device.
- 11. Claim 1 further includes a positional information device that includes (i) a locational module for determining location information of the positional information device, (ii) a communication module for receiving the determined address the determined address of the at

least one location from the server, (iii) a processing module configured to receive the determined address from the communication module and determine route guidance based on the location of the positional information device and the determine address, and (iv) a display module for displaying the route guidance.

- 12. Claim 1 also recites a communications network for coupling the positional information device to the server.
- 13. The system, as described above, requires more than generic computers performing generic computer functions.
- 14. In fact, the system claimed in Claim 1 requires a special purpose computers with special programming instructions. More particularly, the "server," "remote computer," and "positional information device" require specialized hardware and programming instructions.
- 15. Furthermore, at the time of the invention disclosed in the '285 Patent (approximately 2006), to the best of my knowledge, the combination of a remote computer and a GPS device communicating over a server to communicate an address not stored in the GPS device was unconventional.
- 16. Also, at the time of the invention of the '285 Patent, I was not aware of a system comparable to that disclosed in the '285 Patent for remotely entering an address into a GPS device.
- 17. However, other, unclaimed system architectures and methods are available to address the purpose of the claimed invention.
- 18. In addition, a GPS device is a specific purpose device with specific components such as a receiver that listens to the Global Positioning Satellites, which distinguishes GPS devices from general purpose computers.

19. Additionally, a desktop computer or a laptop computer can be transformed from a general purpose computer through the combination of a general purpose computer with a GPS receiver and software that can access positional information provided by the receiver.

Pursuant to 28 U.S.C. § 1746, I hereby certify under penalty of perjury under the laws of the United States of America that the forgoing statements are true and correct.

Executed this 16 day of November, 2014.

Dr. Fang Qiu